

**Evidence-Based Practice in Child &
Adolescent Mental Health:
Recent News and My ESP on EBP**

John Weisz

Judge Baker Children's Center

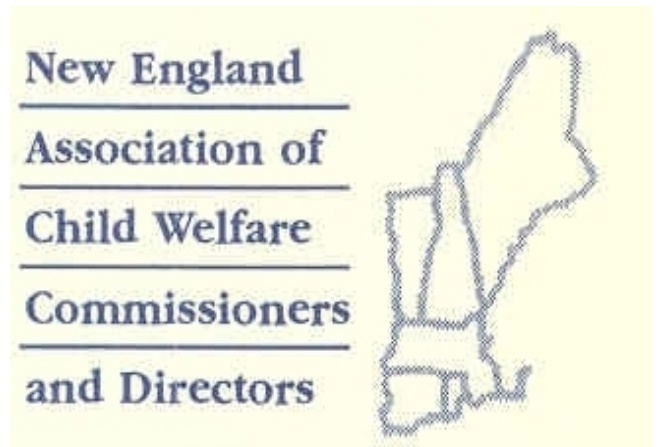
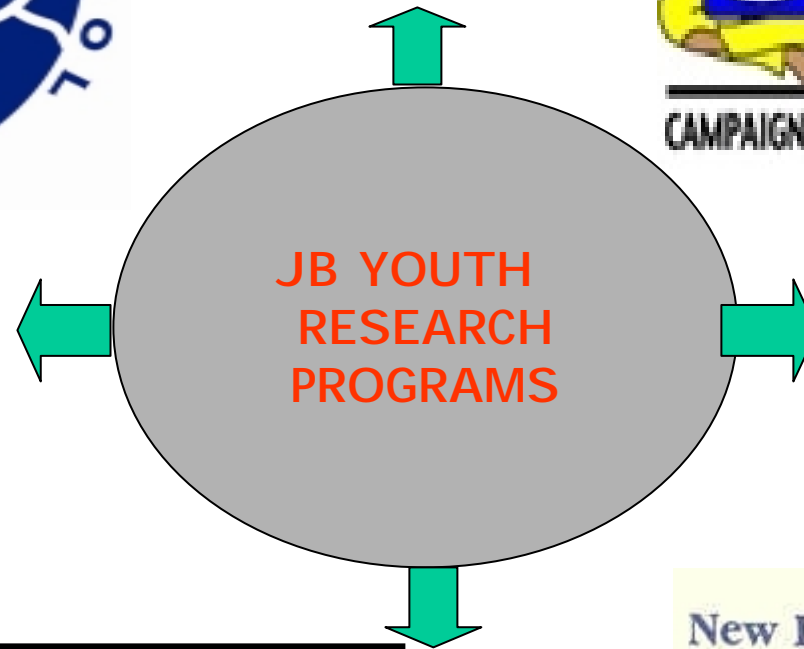
Harvard University

Keynote Address

Children's Array of Psychiatric Programs

September 11, 2006

Portland, Oregon





Programs

- **JBCC Research:** Understanding Children
- **Manville School:** Educating Children
- **Child-at-Risk Hotline:** Protecting Children
- **Media Center:** Advocating for Children
- **New England Assn:** Training those who serve and protect

Collaborators in Youth Mental Health Research

Sarah Kate Bearman	David Langer
Vickie Chang	Anna Lau
Jennifer Connor-Smith	Melissa Magaro
Marie Dennig	Cari McCarty
Geri Donenberg	Bryce McLeod
Karen Eastman	William McMiller
Samantha Fordwood	Jacqueline Martin
Alanna Gelbwasser	Tamara Sharpe
Elana Gordis	Michael Southam-Gerow
Douglas Granger	Christopher Thurber
Jennifer Gray	[Your name here...?]
Susan Han	Sylvia Valeri
Kristin Hawley	Robin Weersing
Anya Ho	[Your name here...?]
Stanley Huey	Bahr Weiss
Mandy Jensen	Trilby Wheeler
Eunie Jung	May Yeh

We Seek to Improve Youth Mental Health by Doing the Following....

- Describe (via meta-analyses), examine (via critiques), improve youth psychotherapy research
- Describe, examine, & improve youth practice
- Identify ways for (a) research to inform practice, and (b) practice to inform research
- Learn how to bring science and practice closer together, by developing and testing ways of bringing EBP into everyday clinical care
- Test effects, esp. relative to strongest version of usual clinical care

Outline of Today's Talk

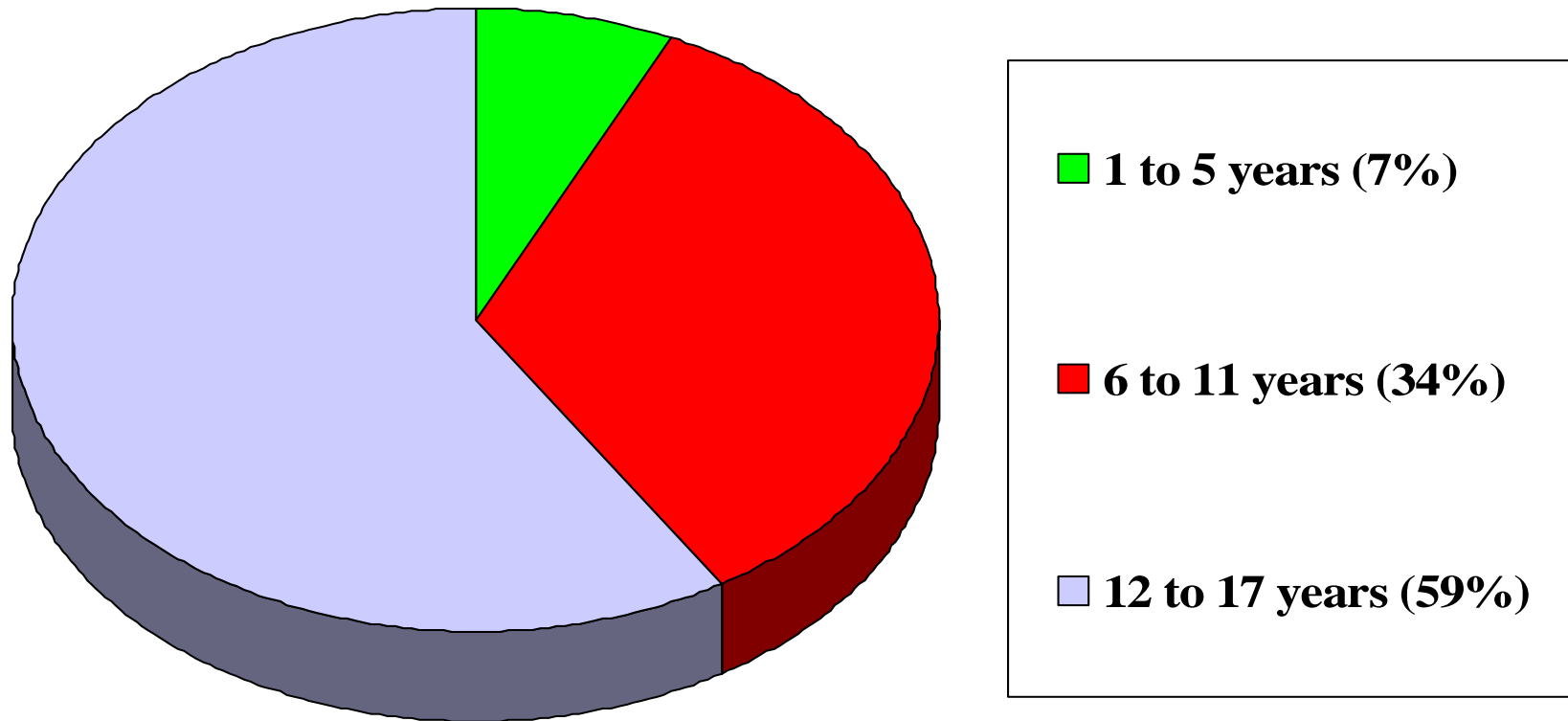
- **The science of youth psychotherapy: State of the evidence on...**
 - **Overall mean impact of psychotherapy**
 - **Specific therapies for specific problem clusters**
- **The practice of youth psychotherapy:**
 - **EBTs in clinical care (and clinical training)**
- **Moving EBTs into practice:**
 - **Problems, prospects, ESP/future directions**
 - **EBTs vs. Usual Care**
 - **Models of Treatment Development**
- **Top 3 clinic record quotes**

Youth Mental Health Care in the United States

- **6-13% of American youth per year**
- **Annual cost: \$11.75 billion**
- **Most of the cost is for psychosocial treatment, psychotherapy**

[From Sturm et al. (2000), Achenbach et al., 2003]

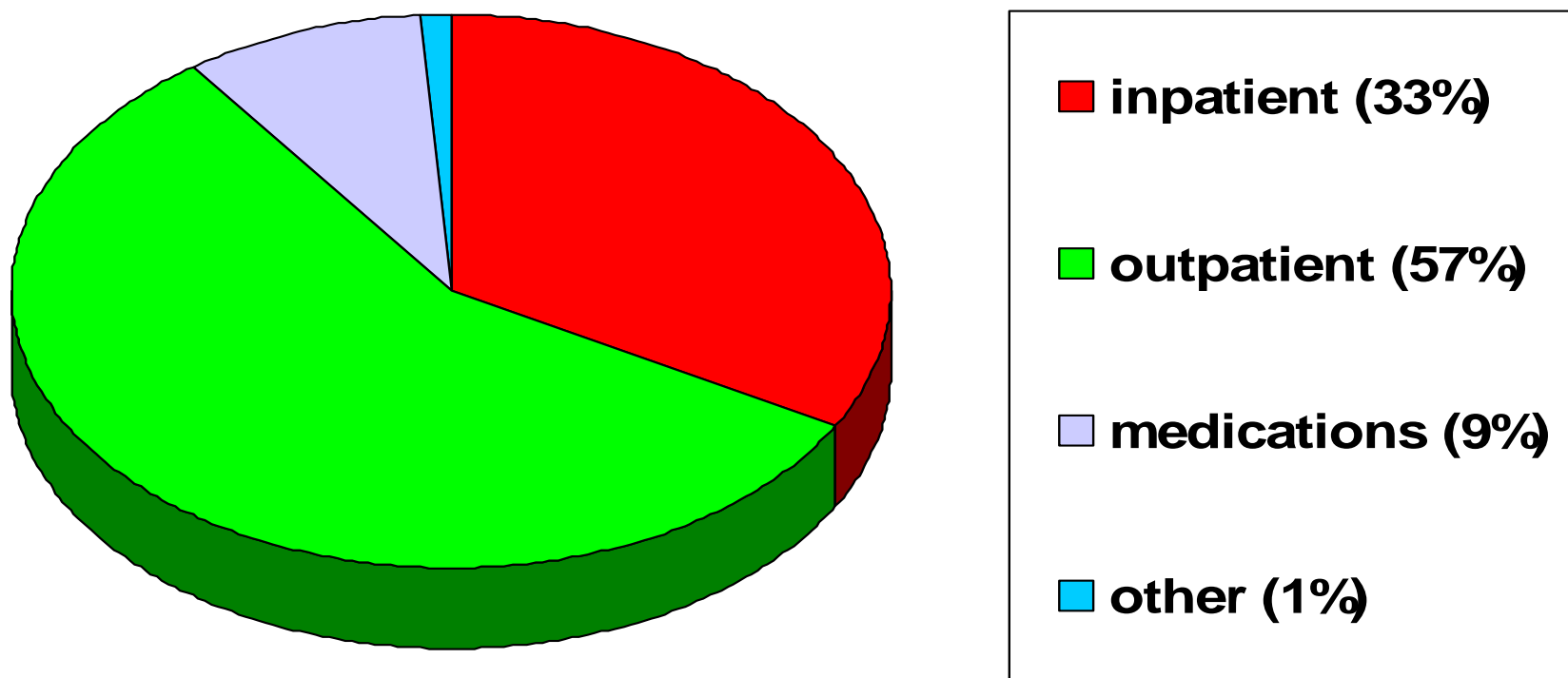
Total Child Mental Health Costs by Age Group



Total Expenditures: \$11.75 billion

(Sturm et al., 2000)

Total Child Mental Health Costs by Service Type



Total Expenditures: \$11.75 billion

(Sturm et al., 2000)

MOST COMMON TREATMENT TARGETS

- 1. Aggression, Delinquency**
- 2. Attention-Deficits /Hyperactivity
(ADD/ADHD)**
- 3. Depression**
- 4. Irrational Fears, Anxiety Disorders**

Treatment Study & Effect Size

1. PRE - TREATMENT

Full Sample

Tx
Group

Control
Group

2. TREATMENT PHASE

Tx Group

Control Group

3. POST-TREATMENT ASSESSMENT

$$\left\{ \text{Treatment Group}^* - \text{Control Group}^* \right\} \div \quad = \quad \text{EFFECT SIZE}$$

INTERPRETING EFFECT SIZE STATISTICS

COHEN'S STANDARD	EFFECT SIZE	PERCENTILE	
	1.00	84	
	0.90	82	
LARGE	0.80	79	
	0.70	76	
	0.60	73	
MEDIUM	0.50	69	
	0.40	66	
	0.30	62	
SMALL	0.20	58	
	0.10	54	
	0.00	50	NO EFFECT
	-0.10	46	
	-0.20	42	DETRIMENTAL EFFECT

BENEFICIAL EFFECT

NO EFFECT

DETRIMENTAL EFFECT

SIX BROAD-BASED META-ANALYSES : DETAILS

	CASEY& BERMAN (1985)	WEISZ ET AL. (1987)	KAZDIN ET AL. (1990)	WEISZ ET AL. (1995)	WEISZ ET AL. (2005)	McCLEOD & WEISZ (2004)
NO. STUDIES	64	105	64/41	150	298	121
AGE RANGE	3-12	4-18	5-18	2-18	3-18	2-18
STUDY YEARS	1952-83	1958-84	1970-88	1967-93	1963-02	1980-99
MEAN % MALES ..	60%	66%	67%	62%	64%	ALL DISS

REPRESENTATIVE TREATED PROBLEMS

EXTERNALIZING/UNDERCONTROLLED

AGRESSION

NONCOMPLIANCE

DELINQUENCY

INTERNALIZING/OVERCONTROLLED

PHOBIAS/ANXIETY

DEPRESSION

SOMATIC PROBLEMS

OTHER PROBLEMS

COGNITIVE SKILL DEFICITS

LOW SOCIOMETRIC/PEER REJECT

REPRESENTATIVE TREATMENTS

BEHAVIORAL THERAPIES

OPERANT

PHYSICAL REINFORCERS, PRIVILEGES

SOCIAL VERBAL REINFORCERS

CLASSICAL

SYSTEMATIC DESENSITIZATION

BIOFEEDBACK, RELAXATION TRAINING

MODELING

LIVE PEER MODEL, PARTICIPANT MODELING

FILM/VIDEO PEER MODEL

COGNITIVE/COGNITIVE BEHAVIORAL

BEHAVIORAL PARENT TRAINING

NONBEHAVIORAL THERAPIES

CLIENT-CENTERED/NONDIRECTIVE

INSIGHT ORIENTED

REPRESENTATIVE OUTCOME MEASURES

1. PARENT RATINGS (e.g. CBCL, SPECIF)
2. CHILD REPORTS (e.g. YSR, SPECIF)
3. TEACHER REPORTS (e.g. TRF)
4. TRAINED OBSERVER RATINGS
5. PEER OBSERVER RATINGS
6. PEER SOCIOMETRIC CHOICES
7. CHILD PERFORMANCE/TASK/TEST
8. DIAGNOSTIC INTERVIEW - P/C
9. GLOBAL ASSESSMENT RATINGS/MH

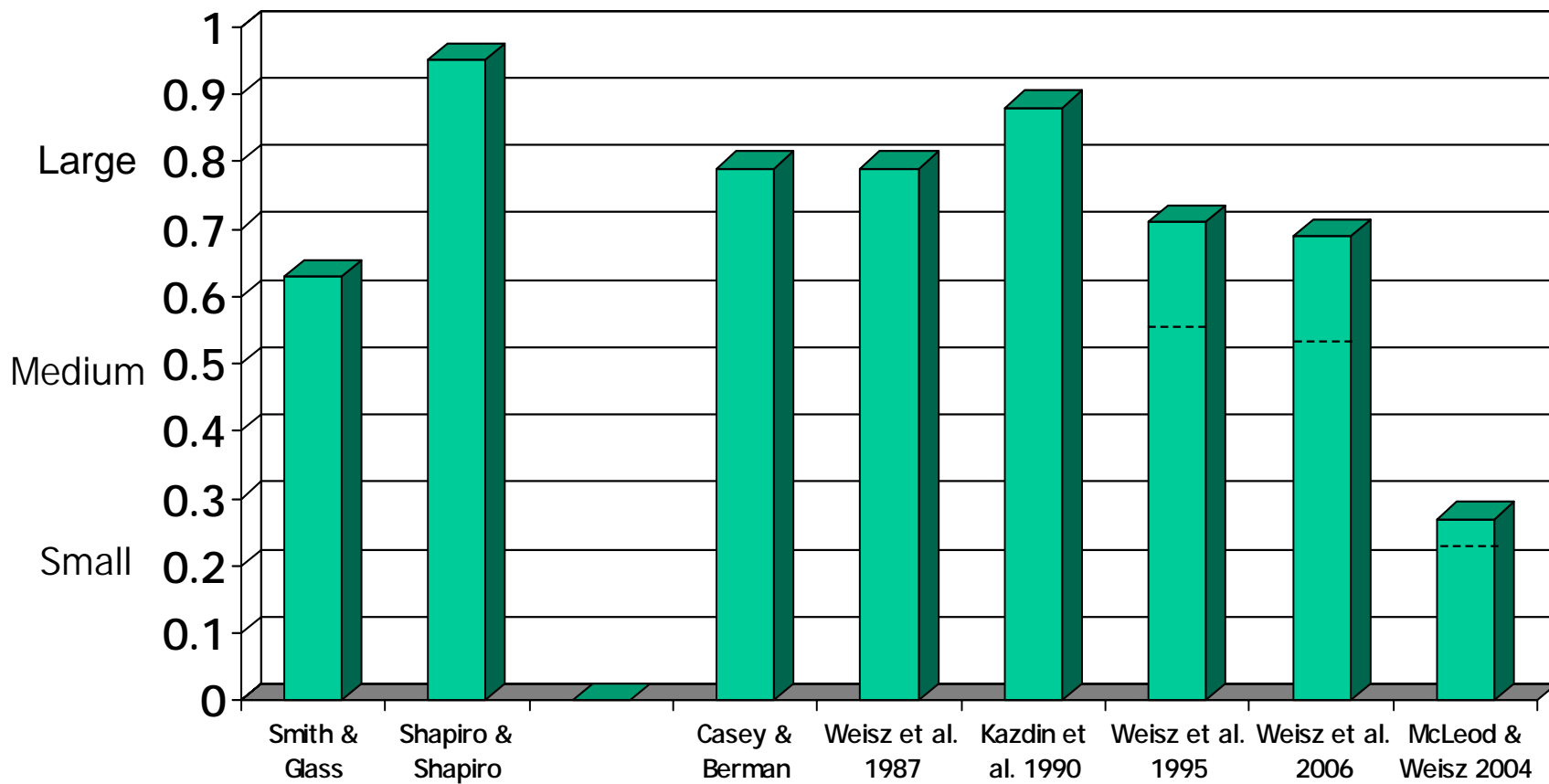
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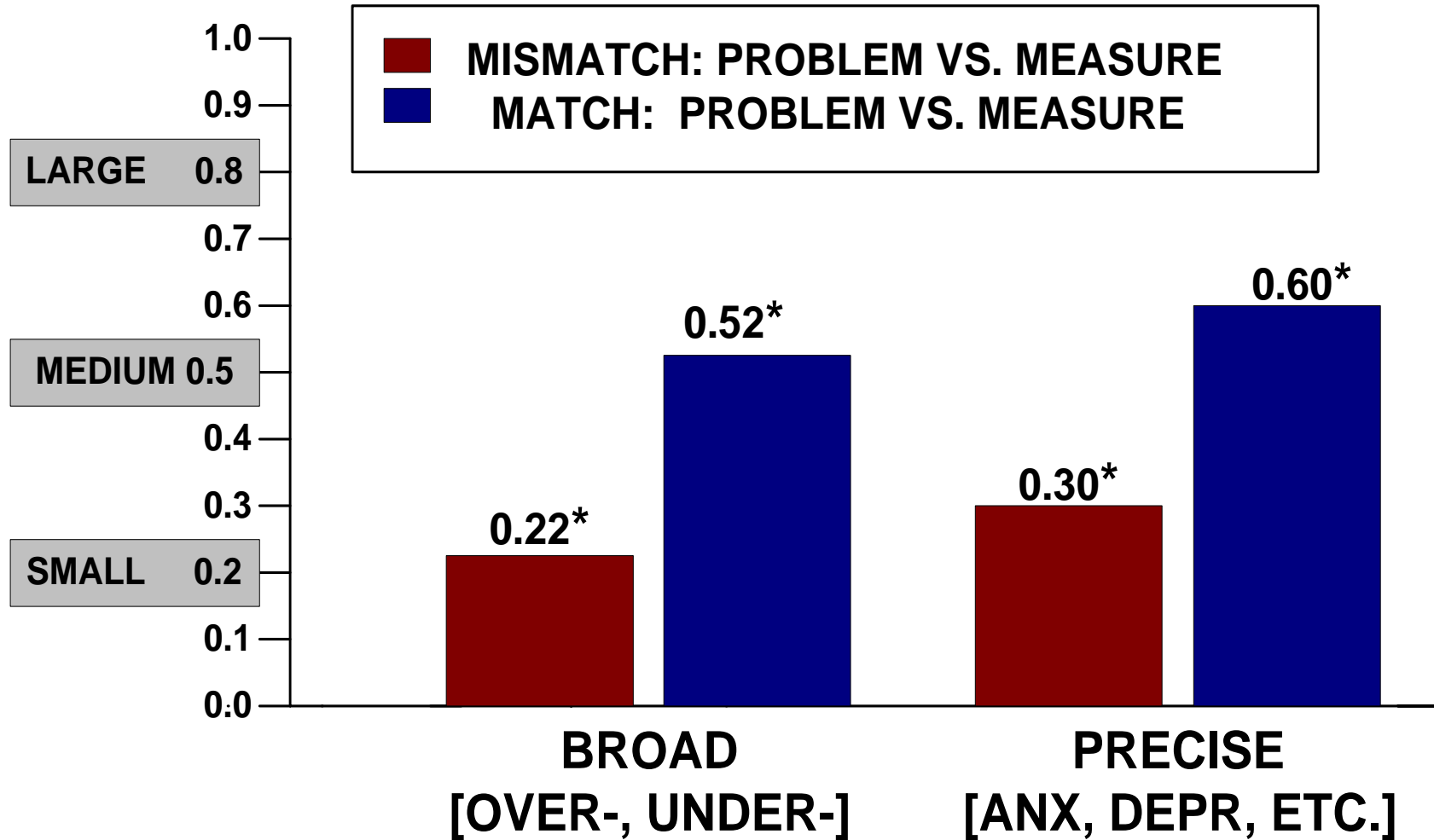
MEAN EFFECT SIZES IN META-ANALYSES OF ADULT AND CHILD STUDIES

ADULT

CHILD



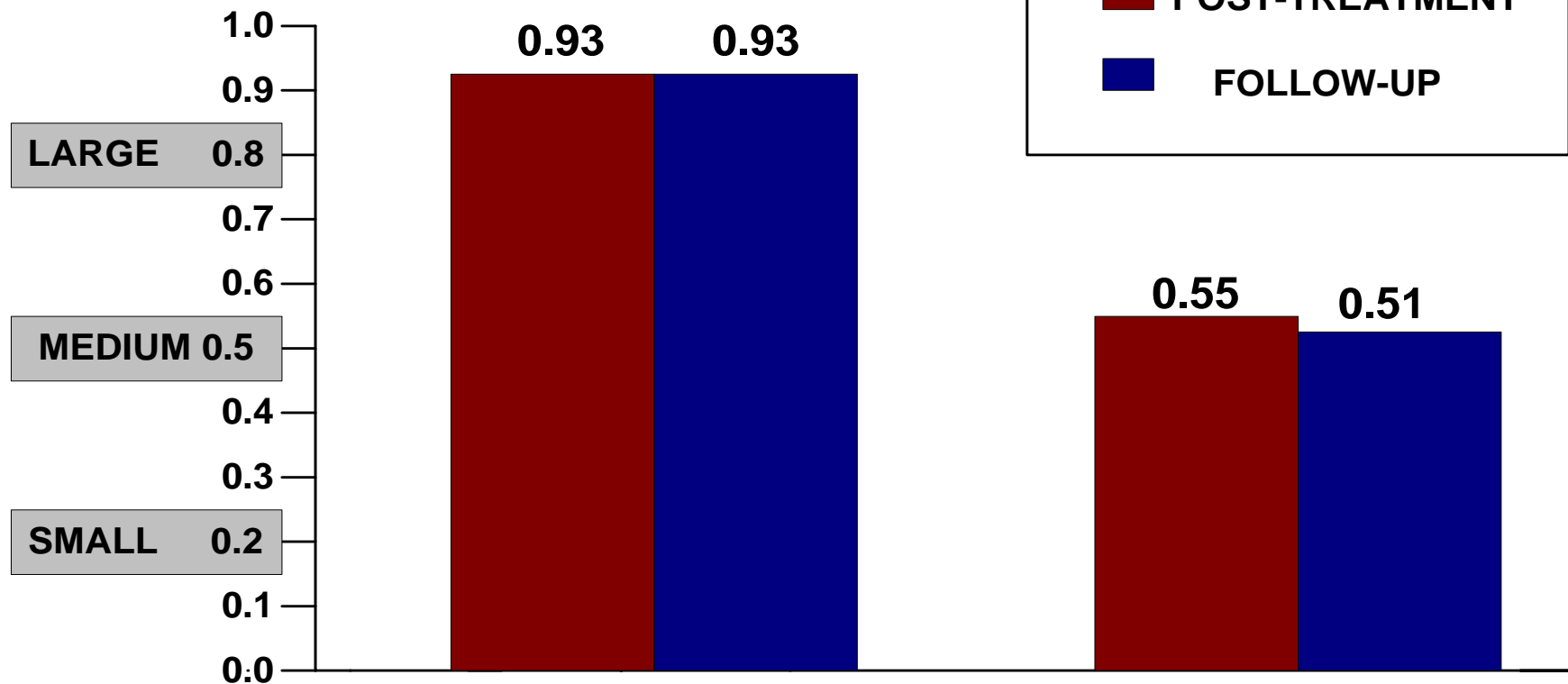
SPECIFICITY OF TREATMENT EFFECTS



* WLS MEANS

DO TREATMENT EFFECTS LAST?

POST-TREATMENT
FOLLOW-UP



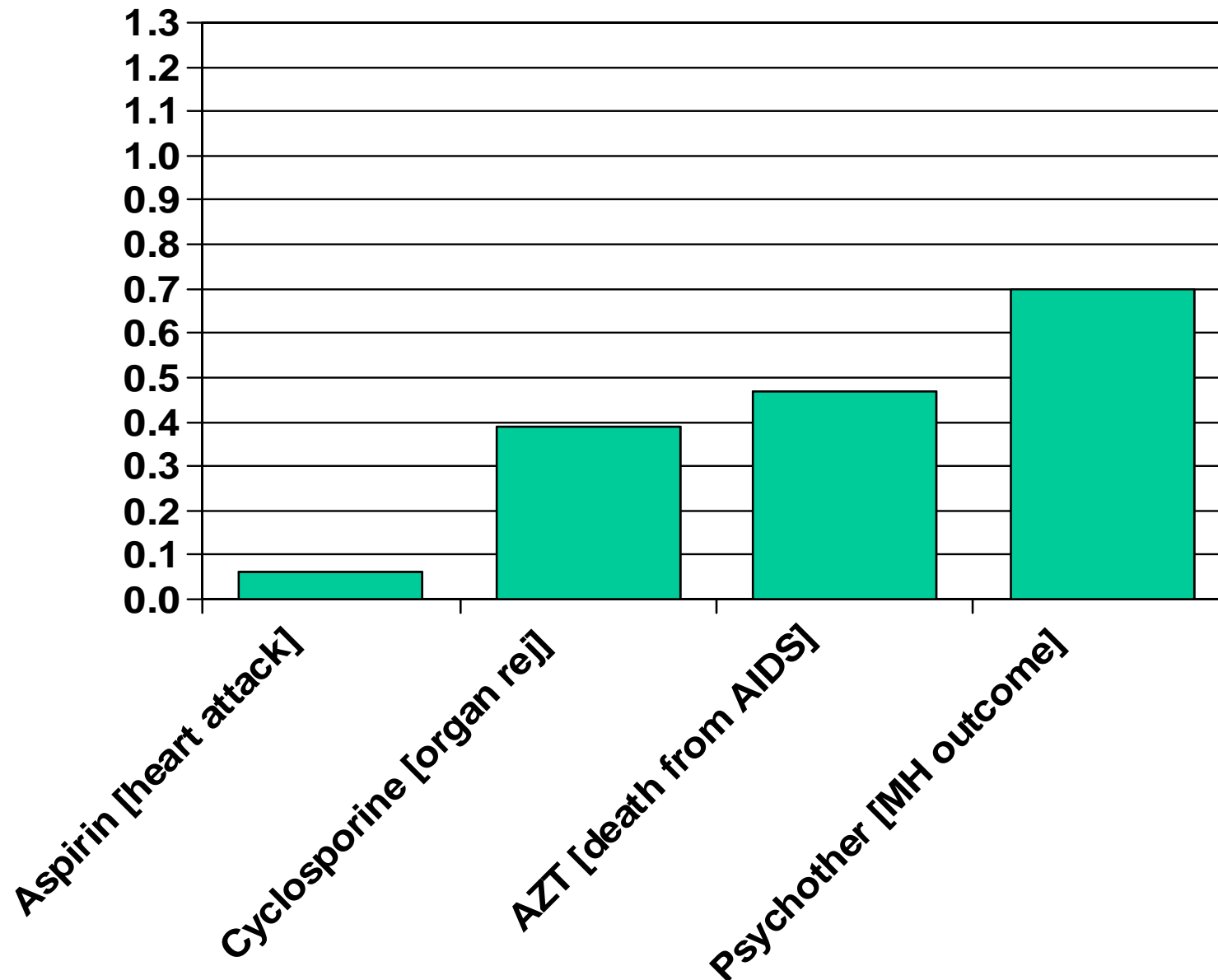
1987

N = 29 STUDIES
M = 24 WEEKS

1995

N = 50 STUDIES
M = 28 WEEKS

ES: Med vs. Psychotherapy (see R. Rosenthal)



CHILD & ADOLESCENT FINDINGS IN A NUTSHELL

EMPIRICALLY TESTED TREATMENTS

- **“MEDIUM” TO “LARGE” EFFECTS**
- **SPECIFIC TO TREATED PROBLEMS**
- **HOLDING POWER OVER TIME**
- **LARGER EFFECTS THAN MANY MEDICAL**

BUT WHAT ARE THE TREATMENTS SUPPORTED IN THIS WORK?

TWO WAYS TO ANSWER:

- **TASK FORCE REVIEW [see JCCAP update in 2006]**
- **TARGETED META-ANALYSIS**

Targeted Meta-Analysis

We Use Mean ES and N-Group Comps to Identify Promising EBTs. Our Criteria.....

- **Treatment vs. Control Group Design**
- **Random Assignment**
- **Target Problem/Disorder Identified**
- **Anxiety, Depression, Conduct, ADHD**
- **At Least 1 Measure of Target Problem**
- **Ages 4-18**
- **[Initially 4000+ studies; W/criteria: 233]**
- **[Note: Omit M-baseline, ABAB, etc.]**
- **ES & REPS: may be relevant to UMICH**

**Most Common
Treatment Targets?**

**Conduct, Aggression,
Delinquency**

Depression

**Irrational Fears,
Anxiety Disorders**

ADHD

**Other problems:
Pain coping, habits,
bet wetting**

**Are There Scientifically
Supported Treatments?**

Yes

Yes

Yes

Yes

Yes

**Used in Most
Clinical Practice?**

No

No

No

**No
[stimulants?]**

No

Are EBTs at Least in the Pipeline?

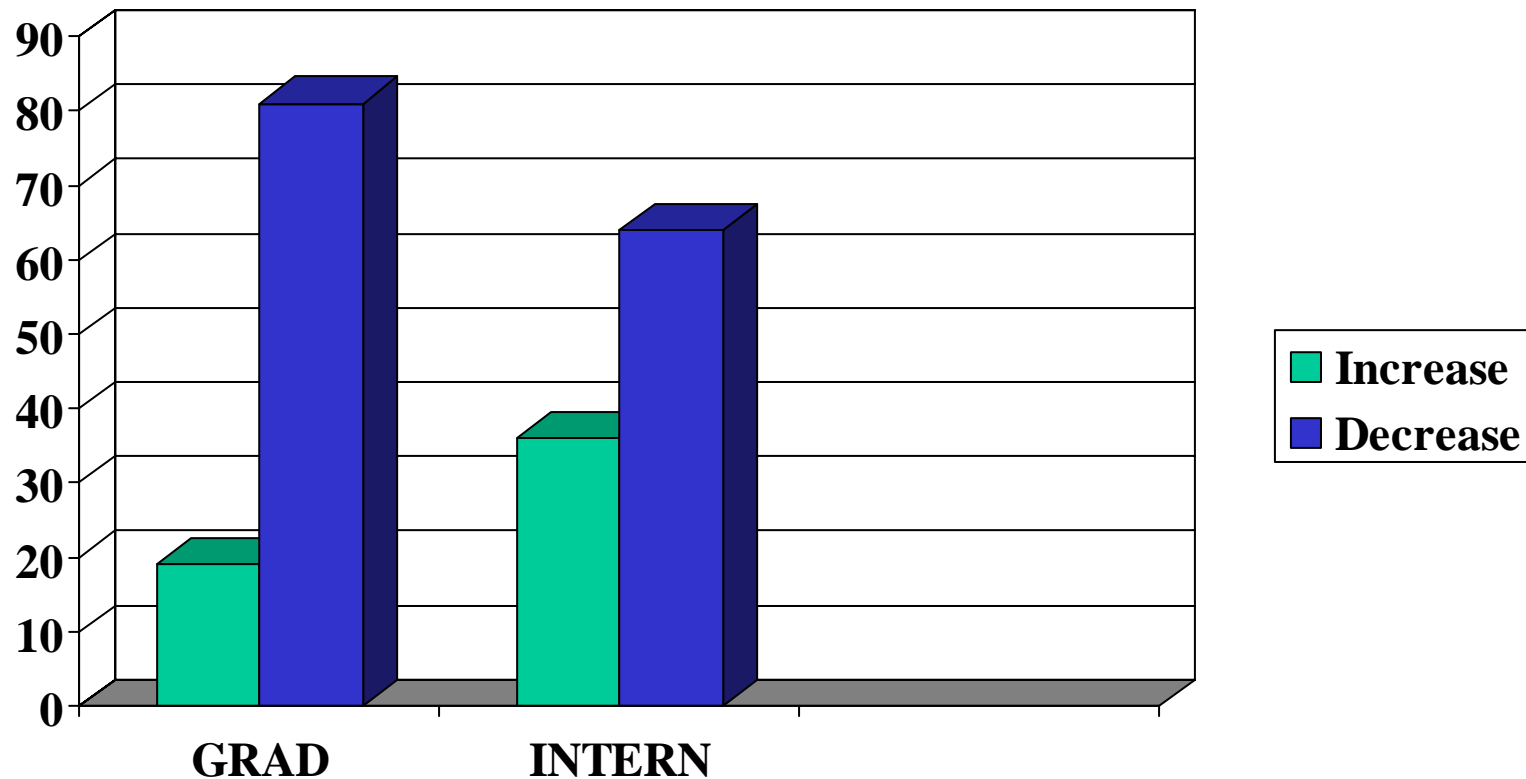
25 EBTs in Grad & Intern Programs

US & Canada: 1993 vs 2003

[Woody, Weisz, McLean, 2005]

- 1993 Survey by Div 12 EST Task Force
 - APA doctoral programs & internship programs
 - Supervised training in each of 25 ESTs
- 2003 Survey by Div 12 CSP
 - 138 DCTs, 184 Intern Directors responded
 - Supervised training in same 25 ESTs

25 EBTs in Grad & Intern Programs: 1993 vs 2003 [Woody, Weisz, McLean, 2005]



Why So Little Movement of EBTs into Training & Clinical Practice?

- Reasons
- Remedies—directions for the future

Reason #1: Most EBTs are designed for specific DSM disorders (or properly assessed problems); without Evidence-Based Assessment (EBA), it will be hard to properly match treatments to children, and thus hard to do true EBP. [Note Jensen & Weisz (2002) results]

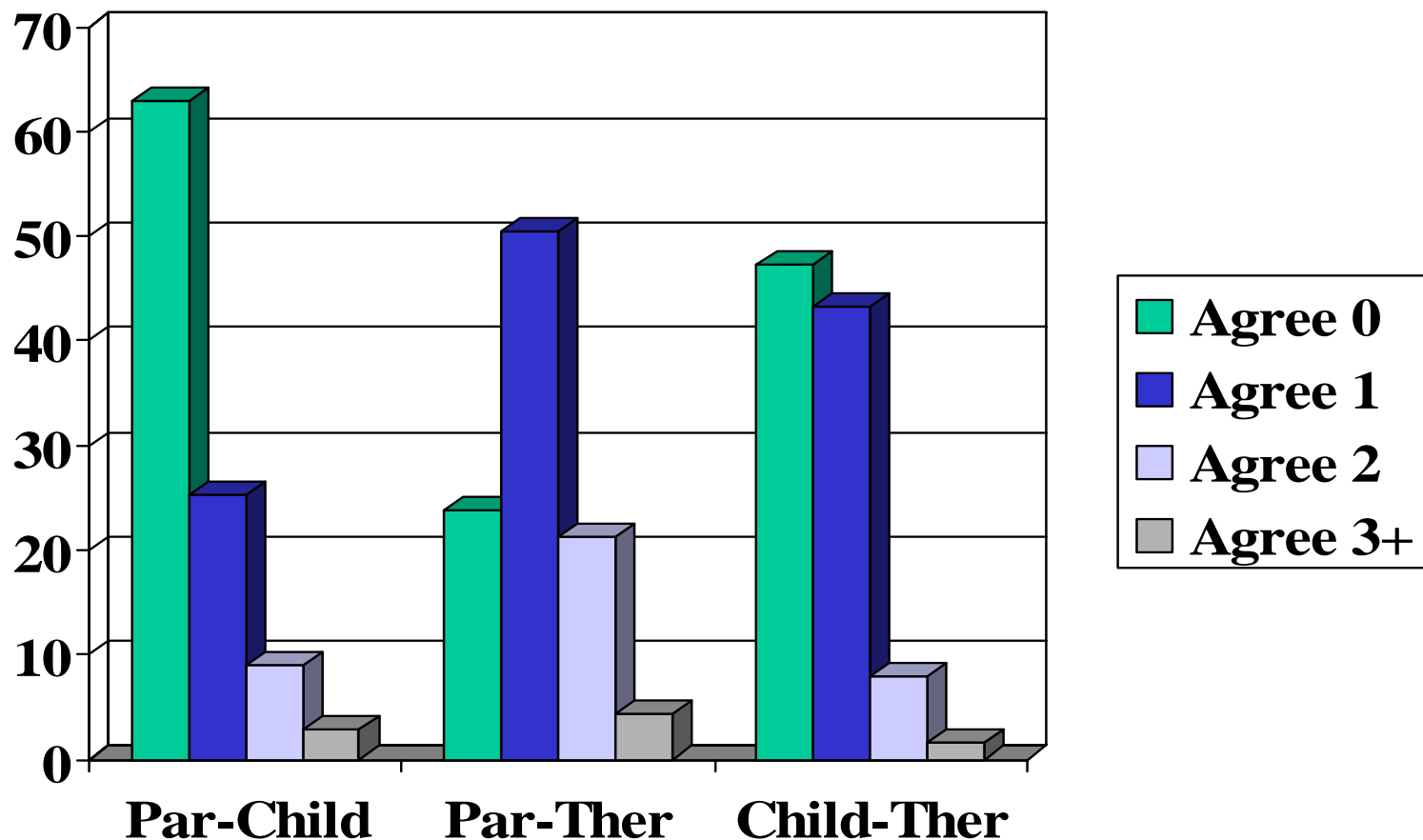
Diagnostic (Dis)agreement-- Standardized vs. Clinical Practice

(Jensen & Weisz, JCCP, 2002)

- 245 clinic-referred youth aged 7-17
- Standardized DISC and clinician-generated diagnosis for all youths
- **Mean kappa for clinician vs. DISC: .08**
- 1 Dx: 149 clinician vs. 60 DISC
- 0 Dx: 1 clinician vs. 50 DISC
- Other studies also show low agreement
- One major problem: DSM vs. time available

Target Problem (Dis)Agreement:

Parent-Child-Therapist (Yeh & Weisz, JCCP 2002; Hawley & Weisz, JCCP 2003)



In the future.....

- EBT will need to be combined with EBA & EBD, to ensure a good match between condition and treatment.

This will require...

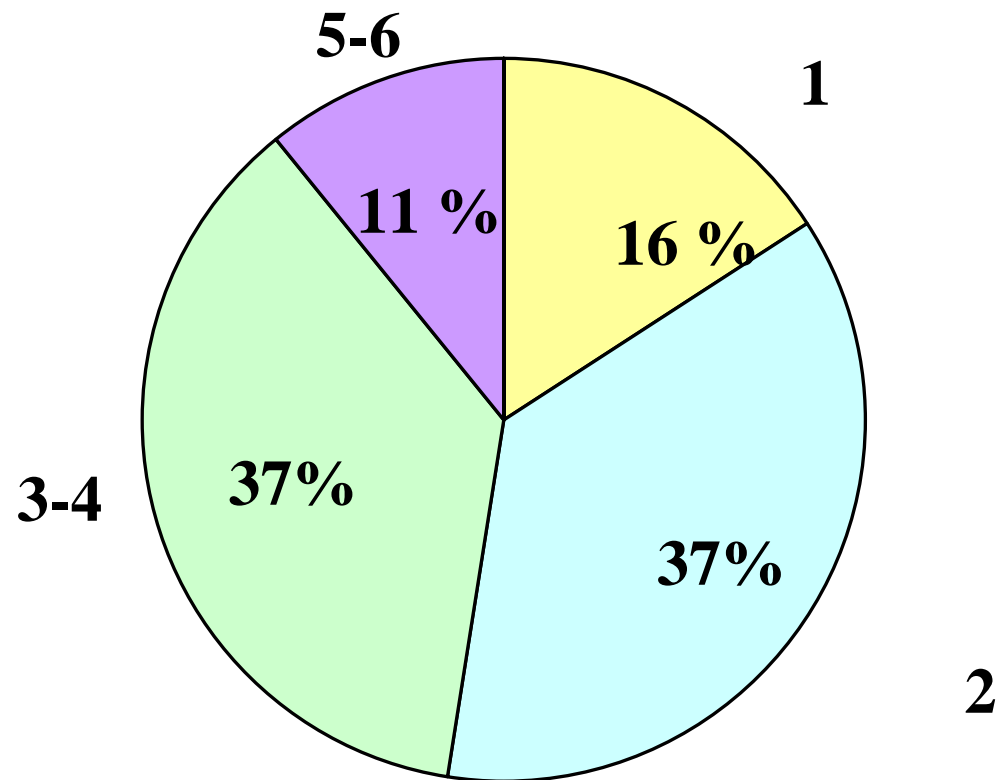
- More practice-friendly assessment strategies
 - E.g.,...self-administered assessments
 - E.g., more efficient diagnosis (e.g., DISC-DPS, CHIPS)
 - E.g., more efficient problem scales (e.g., using Item Response Theory [*our choice*], or adaptive testing approaches)
 - Strategies for child-parent-therapist consensus

Reason #2: Most EBTs are designed for single problems/disorders. Many referred youths are not packaged that way.

Co-morbidity in Outpatient Youth [N=436]

DISORDER	% With That Disorder	% With ONLY that Disorder	% With That Disorder + Others
Depression	23%	3%	20%
Anxiety	39%	12%	27%
Conduct Disorder	18%	2%	16%
Opp Defiant Dis	42%	9%	33%
ADHD	37%	7%	30%

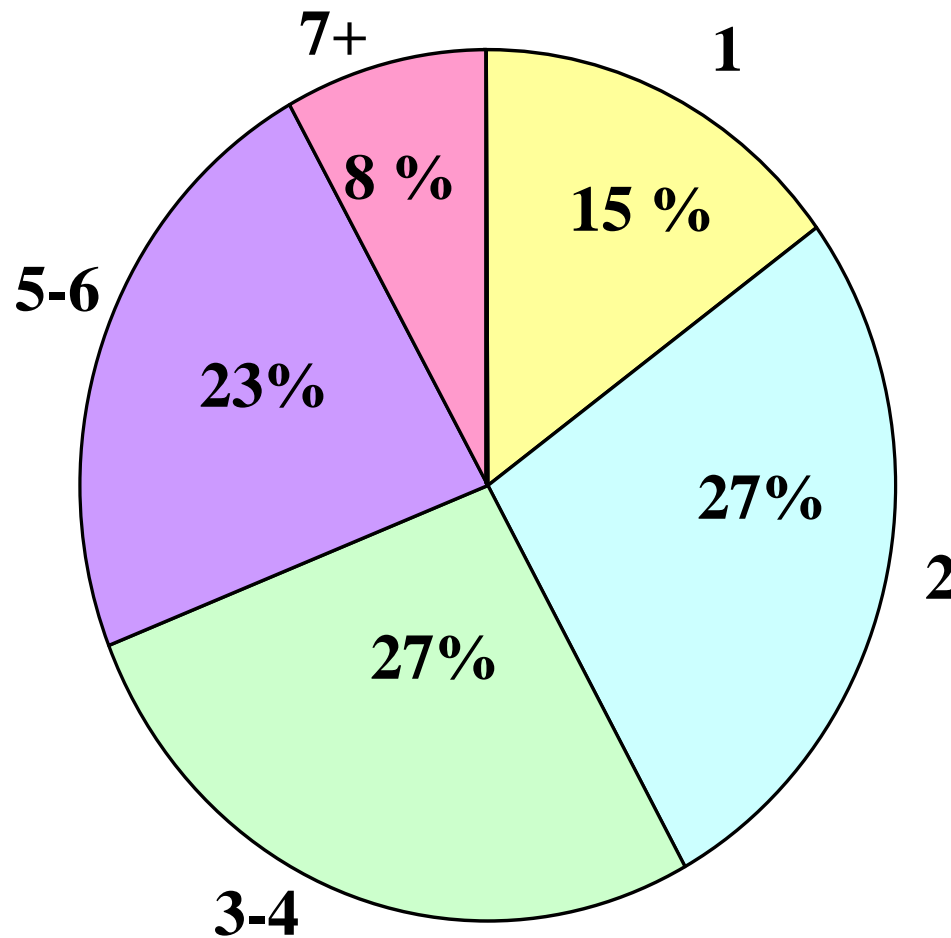
DIAGNOSES: ANXIOUS YOUTH IN YADS



MEAN: 2.7

+ ODD, CD, ADHD: 68%

DIAGNOSES: DEPRESSED YOUTH IN YADS



MEAN: 3.4

+ ODD, CD, ADHD: 81%

In the future.....

- ... practitioners may need to build expertise in tested practices for multiple conditions, to address the comorbidity and complexity of most real children
- [Note e.g., the success of Multisystemic Therapy in dissemination]

Our Child STEPs Project: EBTs in Clinical Practice

- Strive for “Best Practice,” by teaching clinicians a combination of 3 treatments encompassing most of their caseload [**anxiety, depression, conduct problems**]
- Use modular approach to maximize coverage of multiple problems (next segment...)

Reason #3: Most treatments are designed to be linear, but everyday treatment is often not; new problems & crises may derail the most promising plan.

Self-Monitoring

Parent Monitoring



Psychoed Child

Psychoed - Parent

Activity Scheduling

Problem Solving

Relaxation



Skill Building

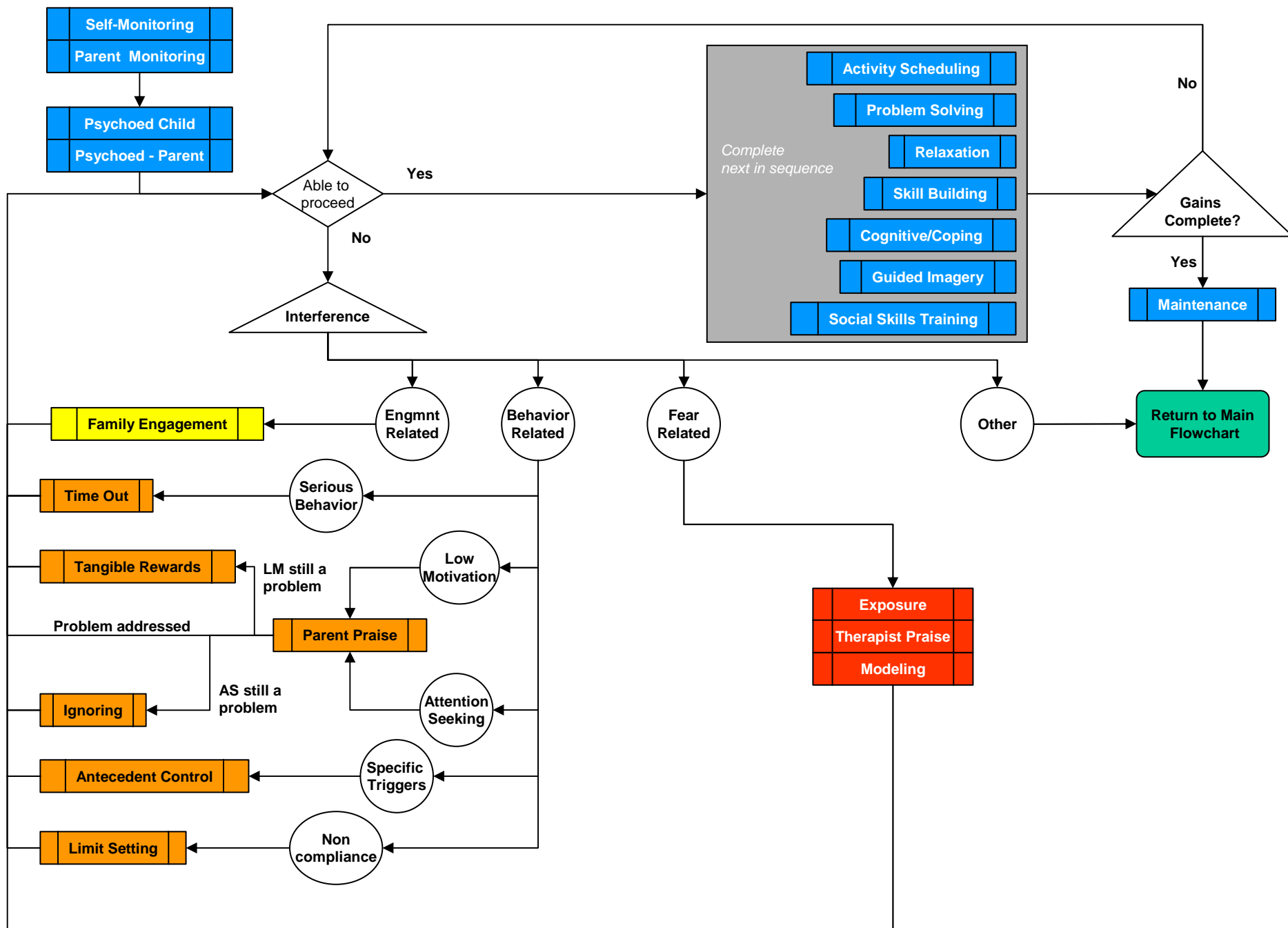


Cognitive/Coping

Guided Imagery

Social Skills Training

Maintenance



In the future....

- ... treatments may be designed to permit shifts in focus and strategy as new problems arise that impede treatment progress. An example, modular treatment in Child STEPS.....

Introduction

About Anxiety

About Depression

About Disruptive Behavior

Cognitive Behavior Therapy

Behavior Management Training

Modular Cognitive and Behavior Therapy

References

Flowcharts

Main

Anxiety

Depression

Disruptive Behavior

Therapist Modules: General

1.Home Visit (*shared across all 3 areas*)

2.School Visit (*shared across all 3 areas*)

Therapist Modules: Anxiety

1.Getting Acquainted

2.Fear Ladder

3.Learning About Anxiety – Child

4.Learning About Anxiety – Parent

5.Practicing

6.Maintenance and Relapse Prevention

7.Cognitive Restructuring: FEAR

8.Wrap-up (*shared by anxiety and depression*)

Therapist Modules: Depression

1.Learning About Depression – Child

2.Learning About Depression – Parent

3.Problem Solving

4.Activity Selection

5.Relaxation

6.Secret Calming

7.Talents and Skills

8.Positive Self

9.Cognitive Coping (BLUE)

10.Cognitive Coping (FUN)

11.Three Step Plan

12.Wrap-up (*shared by anxiety and depression*)

Therapist Modules: Conduct

1.Engaging Parents

2.Why Children Misbehave

3.Paying Attention

4.Commands

5.Praise

6.Active Ignoring

7.Rewards

8.Time Out

9.Anticipating Problems

10.Handling Future Problems

Reason #4: Most EBTs ask a lot of therapists—e.g., learn manual, prep each session, use creativity & charisma to make content engaging.

- **In the future....**
- ... the most successful EBTs may be those that simplify the therapist's task and permit increased focus on traditional therapeutic skills (e.g., alliance).
- E.g., Webster-Stratton-parent training
- E.g., Weisz et al.—Act & Adapt CBT

Reason #5: Most EBTs ask a lot of *clients*, including learning of multiple, often complex skills and completing diverse homework assignments.

- **In the future....**
- ... the most successful EBTs may be those that simplify the *client's* task permitting true mastery of a few skills.
- See following slides

In Child STEPs...

- We may cover multiple modules and multiple skills
- But our goal is a few skills, well-practiced and well-learned, that work well for the child and parent
- This is cumbersome. We wish for a way to assess –up front--which modules/skills have best potential, so therapist and client could go directly to these

Reason #6: To use most EBTs requires most clinicians to give up current practices—these may reflect training & experience, core beliefs & values.

- **In the future....**
- ... the most widely adopted EBTs may be those that *complement* rather than *supplant* current skills.
- My pitch in clinics: Skills & experience of seasoned clinicians plus treatment methods tested through clinical trials.
- Maybe this is wrong, but without it, adoption by pros will be rare, I suspect.

Reason #7: Most EBTs offer therapists little guidance on how to tell if treatment is working, or what to do if it stalls.

- In the future...
- ... **EB practice** will be more than just using an EB manual. Good EB practice will mean *assessing, treating, assessing progress, adjusting treatment as needed, re-assessing progress, etc.—an intervention-assessment dialectic.*
- **Key Point:** Evidence-Based Practice is not just a list of “EBTs,” but an ongoing process
- Operationalizing that process in Child STEPS: Weekly phone checklists, dashboard, sup→

Parent Weekly Checklist: Conduct Problems

During the past week, how has your child been doing at...

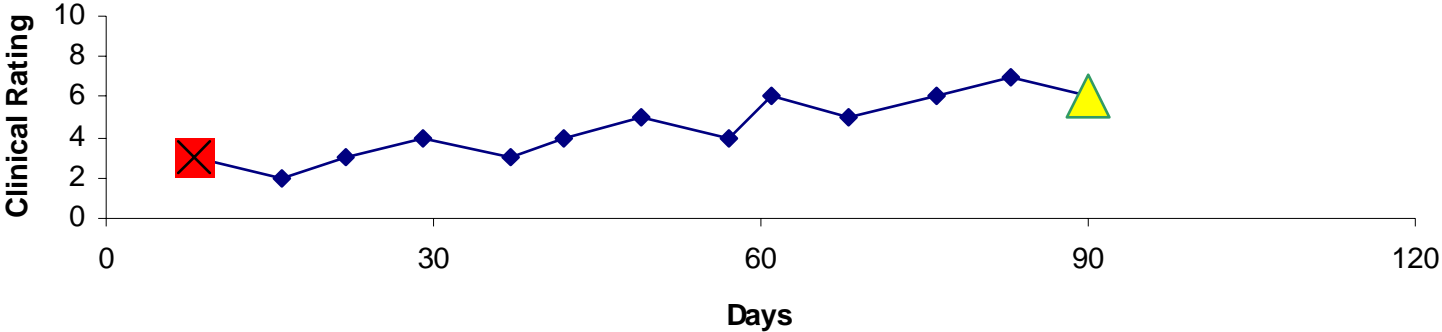
0=Very poorly

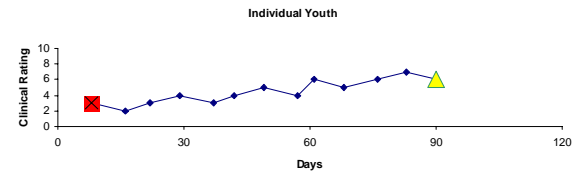
1=So-so

2=Very well

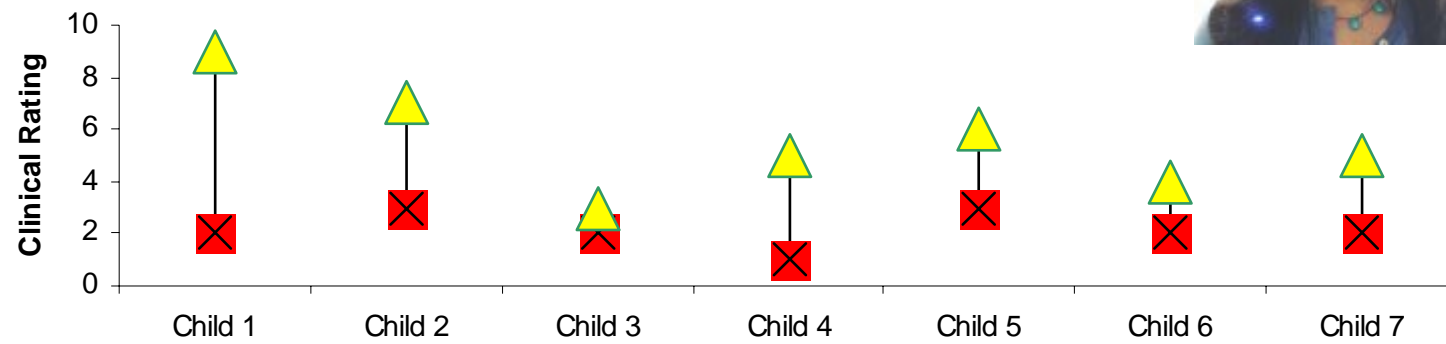
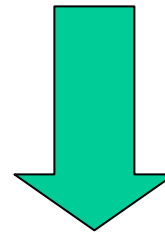
- 1. Obeying your rules and instructions at home.....0 1 2**
- 2. Obeying rules and instructions at school.....0 1 2**
- 3. Getting along well with other children.....0 1 2**
- 4. Staying out of trouble at home and school.....0 1 2**
- 5. Staying calm, avoiding anger and temper tantrums. 0 1 2**

Individual Youth





Supervisor Caseload



Reason #8: Most EBTs have never been tested in comparison to usual clinical care; thus we lack the most compelling logical case for a change in clinician practices.

Our recent meta-analysis of 32 EBT vs. UC comparisons (23 published, 9 unpublished)

First: Your predicted ES?

PREVAILING MODEL: EFFICACY TRANSFER

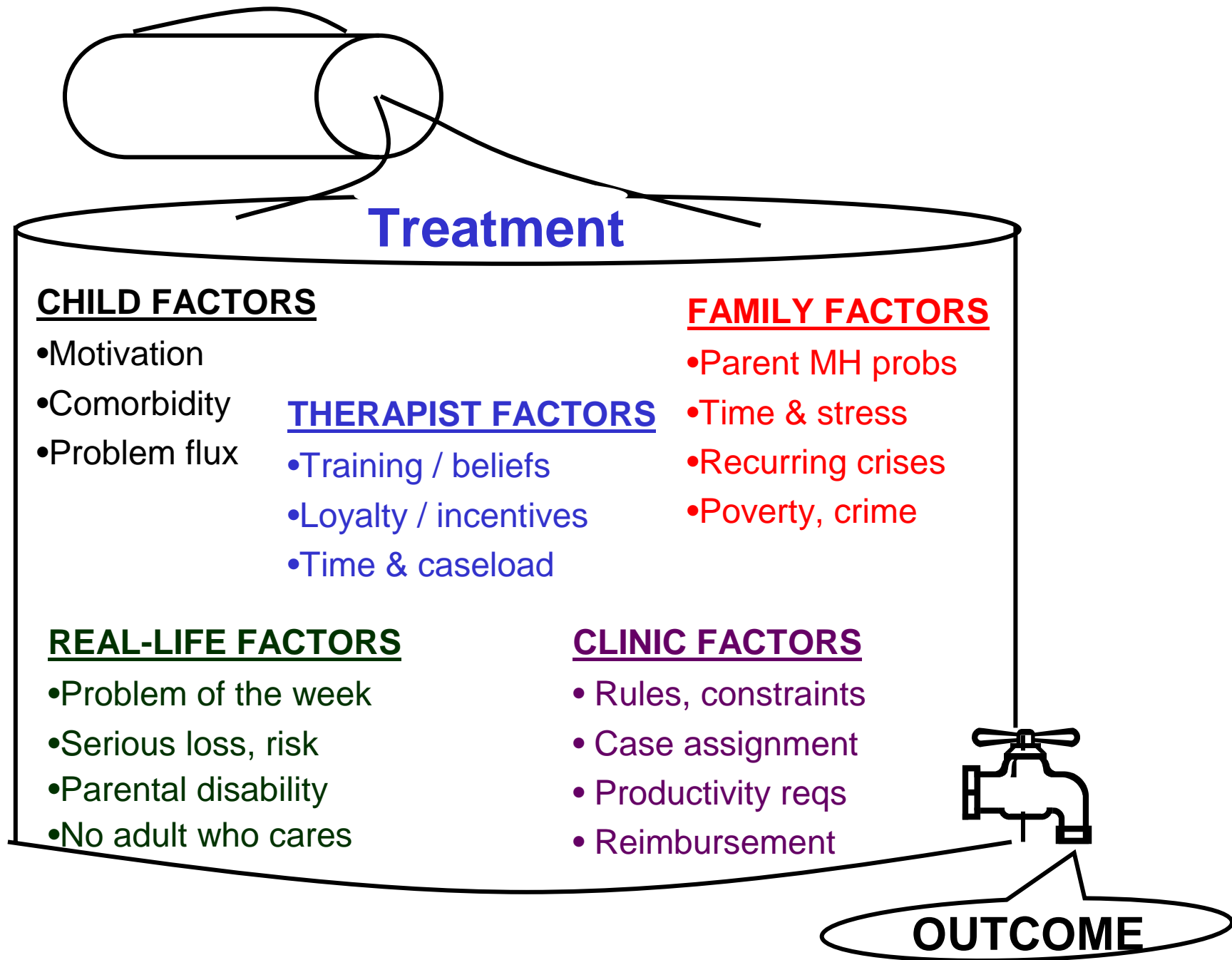
- Efficacy 1
- Efficacy 2
- Efficacy N
- Dismantling
- Moderators
- Add-ons
 - Family component
 - Booster sessions
 - Etc.
- Mediators
- [Effectiveness]

Efficacy Transfer Model--Pros

- Derived in part from med-pharmaceutical research tradition, which has successes.
- Provides good experimental control
- May work for interventions that operate directly on the biological system (e.g., psychopharm, cancer drugs) where diffs between research and practice conditions may not greatly alter the intervention effect

Efficacy Transfer Model--Cons

- For psychotherapies, leaves a lot of bridging to be done at the last step (characteristics of youths, families, therapists, settings, tx conditions)– [see next slide](#)
- Answers to questions (moderators, mediators, dismantling/components, add-on effects) found in efficacy studies may differ from practice
- Delays info on treatment effects in practice
- Delays info on target tx vs. UC
- AND, in truth...The effectiveness step doesn't actually happen for most treatments



WHAT IF WE TOOK A DIFFERENT APPROACH...

- Efficacy 1
 - Efficacy 2
 - Efficacy N
 - Dismantling
 - Moderators
 - Add-ons
 - Family component
 - Booster sessions
 - Etc.
 - Mediators
 - [Effectiveness]
- 

DEPLOYMENT-FOCUSED TREATMENT DEVELOPMENT MODEL

1.PROTOCOL/MANUAL

2.EFFICACY TEST

3.FIELD CASES/adaptation

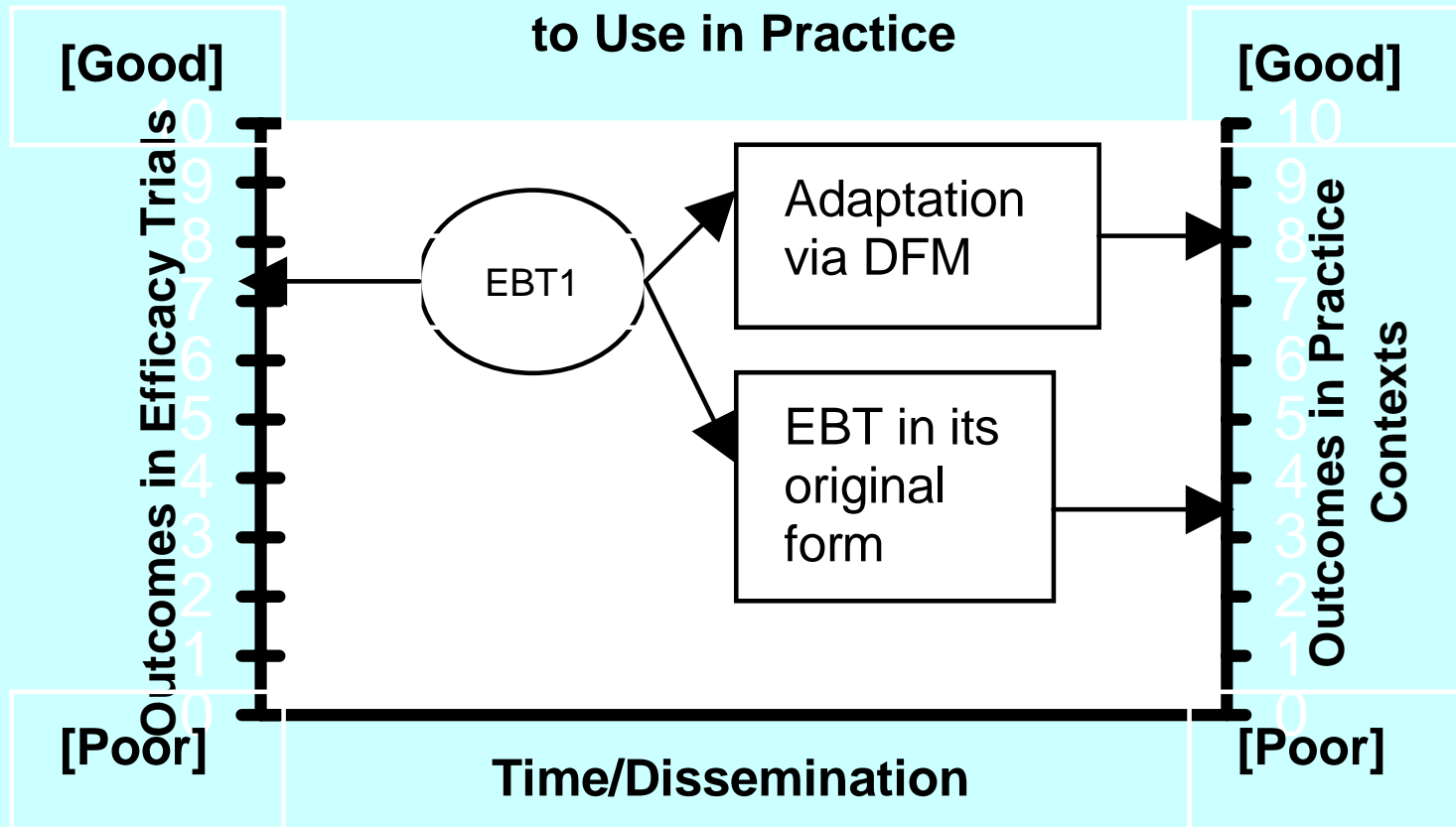
4.EFFECTIVENESS I vs UC

5.EFFECTIVENESS II vs UC

6.STAYING POWER

- Components
- Moderators
- Mediators
- Cost/benefit
- System factors
- Fit Issues

Deployment - Focused Model for the Transition from Efficacy Testing to Use in Practice



So, in the future....

... we may need to consider a shift in the model through which our psychotherapies are developed and tested...

From *efficacy transfer model*

To *deployment-focused model*

Concluding Thoughts...

- Science has a lot to offer practice, including assessment and treatment strategies with excellent potential.
- Practice has a lot to offer science, including reality checks on all that clinical researchers do.
- Finding ways to bring science and practice together within everyday clinical care will be a challenge, but it will be good for science, good for practice, and ultimately good for children and families